

**WHAT IS CLAIMED IS:**

1. A packet communication system comprising:
  - a plurality of terminals, and
  - transferring means for transferring multicast packets written with the same information to said plurality of terminals;
- 5 wherein said transferring means comprises:
  - a broadcast group managing router provided with: holding means for holding calculation type addresses having bits "1" corresponding to those of said plurality of terminals to which a multicast packet is to be transferred, respectively; and assigning/sending means for assigning a pertinent calculation type address to a multicast packet and sends out the multicast packet; and
  - 10 at least one calculation type address calculating router provided with: holding means for holding directional route masks having bits "1" corresponding to those directional routes into which a multicast packet is to be transferred, respectively; and sending means for sending out a multicast packet
  - 15 to those directional routes which are given with logical products of "1" by the combination of each directional route mask and said assigned calculation type address; and
- 20 wherein each of said plurality of terminals comprises:
  - holding means for holding a terminal mask having a bit "1" corresponding to the terminal itself; and
  - multicast packet receiving means for receiving a multicast packet which is given with a logical product of "1" by the combination of said terminal mask and said assigned calculation type address.
2. A mobile communication system comprising:
  - a mobile terminal;

- a plurality of broadcast receiving routers communicated to said mobile terminal via radio link;
- 5        encapsulating means for encapsulating a uni-cast packet destined to said mobile terminal into a multicast packet destined to said plurality of broadcast receiving routers; and
- transferring means for transferring the multicast packet;
- wherein said transferring means comprises:
- 10      a mobile terminal position managing router provided with: holding means for holding calculation type addresses having bits "1" corresponding to those of said plurality of broadcast receiving routers to which a multicast packet is to be transferred, respectively; and assigning/sending means for assigning a pertinent calculation type address to a multicast packet and sends
- 15      out the multicast packet; and
- at least one calculation type address calculating router provided with: holding means for holding directional route masks having bits "1" corresponding to those directional routes into which a multicast packet is to be transferred, respectively; and sending means for sending out a multicast packet
- 20      to those directional routes which are given with logical products of "1" by the combination of each directional route mask and said assigned calculation type address; and
- wherein each of said plurality of broadcast receiving routers comprises:
- holding means for holding a terminal mask having a bit "1"
- 25      corresponding to the terminal itself;
- multicast packet receiving means for receiving a multicast packet which is given with a logical product of "1" by the combination of said terminal mask and said assigned calculation type address; and
- de-capsulating means for de-capsulating the received multicast packet
- 30      into a uni-cast packet destined to said mobile terminal.

3. An addressing method for communication, comprising:

at least one calculation type address having bits "1" corresponding to destinations to which a multicast packet is to be transferred;

5 those directional routes into which a multicast packet is to be transferred; and

at least one terminal mask having a bit "1" corresponding to that destination which is to receive the multicast packet.